

CLAIMS

What is claimed is:

- 1 1. A method for storing a scrambled digital program comprising:
2 receiving the scrambled program;
3 receiving a plurality of access requirements, wherein each access
4 requirement can descramble the scrambled program;
5 selecting at least one of the access requirements;
6 storing the scrambled program and the selected at least one access
7 requirement.
- 1 2. The method of claim 1, wherein each access requirement is included
2 in a packet identifier (PID).
- 1 3. The method of claim 1, further comprising filtering the selected access
2 requirement with a filtering function that receives the plurality of access
3 requirements at an input and permits the selected access requirement to
4 pass to an output.
- 1 4. The method of claim 3, wherein the output of the filtering function is
2 delivered to an input of a digital storage medium.
- 1 5. The method of claim 1, wherein the access requirements are selected
2 from the group comprising pay per view, pay per time, impulse pay per view,

3 time based historical, pay per time, repurchase of copy never movies, and
4 personal scrambling.

1 6. A copy management method for controlling the recording and
2 reproduction of digital content comprising:

3 receiving a digital bitstream including program data, said program
4 data including system information and said digital content in a scrambled
5 format;

6 descrambling said digital content in a scrambled format to provide a
7 first output including said digital content in a descrambled format;

8 re-scrambling said digital content in a descrambled format to provide
9 a second output including said digital content in a re-scrambled format;

10 outputting said first output including said digital content in a
11 descrambled format and a second output including said digital content in a
12 re-scrambled format;

13 receiving a plurality of access requirements, wherein each access
14 requirement can descramble the program data;

15 selecting at least one of the access requirements;

16 storing the scrambled program data and the selected at least one
17 access requirement.

1 7. The copy management method of claim 6, further comprising
2 receiving and recording said digital content of said second output in a
3 scrambled format.

1 8. The copy management method of claim 6, further comprising:
2 demultiplexing said digital content from said program data; and
3 decompressing said digital content in a descrambled format to a
4 decompressed state.

1 9. The copy management method of claim 6, wherein said
2 decompressing is executed in an MPEG decoder.

1 10. The copy management method of claim 6, wherein said digital content
2 is content contained in digital television transmissions.

1 11. The copy management method of claim 6, wherein said digital content
2 is content downloaded from the Internet.

1 12. The copy management method of claim 6, wherein said descrambling
2 and re-scrambling steps are carried out in a first conditional access unit.

1 13. The copy management system of claim 6, wherein said descrambling
2 step is carried out in a first conditional access unit, and said re-scrambling
3 step is carried out in a second conditional access unit.

1 14. The copy management system of claim 6, wherein said descrambling
2 step comprises:

3 extracting a descrambling key included in said program data; and

4 applying said descrambling key to said digital content in a scrambled
5 format to provide said digital content in a descrambled format.

1 15. The copy management system of claim 6, wherein said descrambling
2 key is used to re-scramble said digital content.

1 16. A copy management method for controlling the recording and
2 reproduction of digital content comprising:

3 receiving a digital bitstream including program data, said program
4 data including system information and said digital content in a scrambled
5 format;

6 descrambling said digital content in a scrambled format to provide a
7 first output including said digital content in a descrambled format;

8 outputting said first output including said digital content in a
9 descrambled format;

10 outputting a second output including said digital content in a
11 scrambled format;

12 receiving a plurality of access requirements, wherein each access
13 requirement can descramble the scrambled program;

14 selecting at least one of the access requirements;

15 storing the scrambled program data and the selected at least one
16 access requirement.

1 17. The copy management method of claim 16, further comprising
2 receiving and recording said digital content of said second output in a
3 scrambled format.

1 18. The copy management method of claim 16, further comprising:
2 demultiplexing said digital content from said program data; and
3 decompressing said digital content in a descrambled format to a
4 decompressed state.

1 19. The copy management method of claim 16, wherein said
2 decompressing is executed in an MPEG decoder.

1 20. The copy management method of claim 16, wherein said digital
2 content is content contained in digital television transmissions.

1 21. The copy management method of claim 16, wherein said digital
2 content is downloaded from the Internet.

1 22. The copy management system of claim 16, wherein said
2 descrambling comprises:
3 extracting a descrambling key included in said program data; and
4 applying said descrambling key to said digital content in a scrambled
5 format to provide said digital content in a descrambled format.

1 23. An apparatus for storing a scrambled digital program comprising:
2 a receiver to receive the scrambled program; and to receive a plurality
3 of access requirements, wherein each access requirement can descramble
4 the scrambled program;
5 a selector to select at least one of the access requirements;
6 a memory to store the scrambled program and the selected at least
7 one access requirement.

1 24. The apparatus of claim 23, wherein each access requirement is
2 included in a packet identifier (PID).

1 25. The apparatus of claim 23, further comprising a filter to filter the
2 selected access requirement with a filtering function that receives the
3 plurality of access requirements at an input and permits the selected access
4 requirement to pass to an output.

1 26. The apparatus of claim 25, wherein the output of the filtering function
2 is delivered to an input of a digital storage medium.

1 27. The apparatus of claim 23, wherein the access requirements are
2 selected from the group comprising pay per view, pay per time, impulse pay
3 per view, time based historical, pay per time, repurchase of copy never
4 movies, and personal scrambling.

1 28. A copy management system for controlling the recording and
2 reproduction of digital content comprising:
3 means for receiving a digital bitstream including program data, said
4 program data including system information and said digital content in a
5 scrambled format;
6 means for descrambling said digital content in a scrambled format to
7 provide a first output including said digital content in a descrambled format;
8 means for re-scrambling said digital content in a descrambled format
9 to provide a second output including said digital content in a re-scrambled
10 format;
11 means for outputting said first output including said digital content in a
12 descrambled format and a second output including said digital content in a
13 re-scrambled format;
14 means for receiving a plurality of access requirements, wherein each
15 access requirement can descramble the program data;
16 means for selecting at least one of the access requirements;
17 means for storing the scrambled program data and the selected at
18 least one access requirement.

1 29. The copy management system of claim 28, further comprising means
2 for receiving and recording said digital content of said second output in a
3 scrambled format.

1 30. The copy management system of claim 28, further comprising:
2 demultiplexing said digital content from said program data; and
3 decompressing said digital content in a descrambled format to a
4 decompressed state.

1 31. The copy management system of claim 28, wherein said
2 decompressing is executed in an MPEG decoder.

1 32. The copy management system of claim 28, wherein said digital
2 content is content contained in digital television transmissions.

1 33. The copy management system of claim 28, wherein said digital
2 content is content downloaded from the Internet.

1 34. The copy management system of claim 28, wherein said
2 descrambling and re-scrambling steps are carried out in a first conditional
3 access unit.

1 35. The copy management system of claim 28, wherein said
2 descrambling step is carried out in a first conditional access unit, and said
3 re-scrambling step is carried out in a second conditional access unit.

1 36. The copy management system of claim 28, wherein said
2 descrambling step comprises:

3 means for extracting a descrambling key included in said program
4 data; and
5 means for applying said descrambling key to said digital content in a
6 scrambled format to provide said digital content in a descrambled format.

1 37. The copy management system of claim 28, wherein said
2 descrambling key is used to re-scramble said digital content.

1 38. A copy management system for controlling the recording and
2 reproduction of digital content comprising:

3 means for receiving a digital bitstream including program data, said
4 program data including system information and said digital content in a
5 scrambled format;

6 means for descrambling said digital content in a scrambled format to
7 provide a first output including said digital content in a descrambled format;

8 means for outputting said first output including said digital content in a
9 descrambled format;

10 means for outputting a second output including said digital content in
11 a scrambled format;

12 means for receiving a plurality of access requirements, wherein each
13 access requirement can descramble the scrambled program;

14 means for selecting at least one of the access requirements;

15 means for storing the scrambled program data and the selected at
16 least one access requirement.

1 39. The copy management system of claim 38, further comprising means
2 for receiving and recording said digital content of said second output in a
3 scrambled format.

1 40. The copy management system of claim 38, further comprising:
2 means for demultiplexing said digital content from said program data;
3 and
4 means for decompressing said digital content in a descrambled
5 format to a decompressed state.

1 41. The copy management system of claim 38, wherein said
2 decompressing is executed in an MPEG decoder.

1 42. The copy management system of claim 38, wherein said digital
2 content is content contained in digital television transmissions.

1 43. The copy management system of claim 38, wherein said digital
2 content is downloaded from the Internet.

1 44. The copy management system of claim 38, wherein said means for
2 descrambling comprises:
3 means for extracting a descrambling key included in said program
4 data; and

5 means for applying said descrambling key to said digital content in a
6 scrambled format to provide said digital content in a descrambled format.

1 45. A system for storing a scrambled digital program comprising:
2 means for receiving the scrambled program;
3 means for receiving a plurality of access requirements, wherein each
4 access requirement can descramble the scrambled program;
5 means for selecting at least one of the access requirements;
6 means for storing the scrambled program and the selected at least
7 one access requirement.

1 46. The system of claim 45, wherein each access requirement is included
2 in a packet identifier (PID).

1 47. The system of claim 45, further comprising means for filtering the
2 selected access requirement with a filtering function that receives the
3 plurality of access requirements at an input and permits the selected access
4 requirement to pass to an output.

1 48. The system of claim 47, wherein the output of the filtering function is
2 delivered to an input of a digital storage medium.

1 49. The system of claim 45, wherein the access requirements are
2 selected from the group comprising pay per view, pay per time, impulse pay

3 per view, time based historical, pay per time, repurchase of copy never
4 movies, and personal scrambling.

1 50. A computer readable medium containing instructions which, when
2 executed by a processing system, cause the system to perform a method for
3 storing a scrambled digital program comprising:

4 receiving the scrambled program;

5 receiving a plurality of access requirements, wherein each access
6 requirement can descramble the scrambled program;

7 selecting at least one of the access requirements;

8 storing the scrambled program and the selected at least one access
9 requirement.

1 51. The medium of claim 50, wherein each access requirement is
2 included in a packet identifier (PID).

1 52. The method of claim 50, wherein the instructions, when executed,
2 further cause the system to perform filtering the selected access requirement
3 with a filtering function that receives the plurality of access requirements at
4 an input and permits the selected access requirement to pass to an output.

1 53. The medium of claim 52, wherein the output of the filtering function is
2 delivered to an input of a digital storage medium.

1 54. The medium of claim 50, wherein the access requirements are
2 selected from the group comprising pay per view, pay per time, impulse pay
3 per view, time based historical, pay per time, repurchase of copy never
4 movies, and personal scrambling.

1 55. A computer readable medium containing instructions which, when
2 executed by a processing system, cause the system to perform a copy
3 management method for controlling the recording and reproduction of digital
4 content comprising:

5 receiving a digital bitstream including program data, said program
6 data including system information and said digital content in a scrambled
7 format;

8 descrambling said digital content in a scrambled format to provide a
9 first output including said digital content in a descrambled format;

10 re-scrambling said digital content in a descrambled format to provide
11 a second output including said digital content in a re-scrambled format;

12 outputting said first output including said digital content in a
13 descrambled format and a second output including said digital content in a
14 re-scrambled format;

15 receiving a plurality of access requirements, wherein each access
16 requirement can descramble the program data;

17 selecting at least one of the access requirements;

18 storing the scrambled program data and the selected at least one
19 access requirement.

1 56. The medium of claim 55, wherein the instructions, when executed,
2 further cause the system to perform receiving and recording said digital
3 content of said second output in a scrambled format.

1 57. The medium of claim 55, wherein the instructions, when executed,
2 further cause the system to perform:
3 demultiplexing said digital content from said program data; and
4 decompressing said digital content in a descrambled format to a
5 decompressed state.

1 ~~58.~~ A computer readable medium containing instructions which, when
2 executed by a processing system, cause the system to perform a copy
3 management method for controlling the recording and reproduction of digital
4 content comprising:
5 receiving a digital bitstream including program data, said program
6 data including system information and said digital content in a scrambled
7 format;
8 descrambling said digital content in a scrambled format to provide a
9 first output including said digital content in a descrambled format;
10 outputting said first output including said digital content in a
11 descrambled format;

